

From: Gong, Kristiene
Sent: Wed 8/12/2015 6:23:20 PM
Subject: RE: CO Mine Spill Clips - 8/12

Wired:

<http://www.wired.com/2015/08/orange-river-epas-reputation-need-cleanup/>

THAT ORANGE RIVER AND EPA'S REPUTATION BOTH NEED A CLEANUP

Jordan Golson

A WEEK AGO, an EPA contractor attempting to explore an abandoned mine north of Silverton, Colorado, accidentally caused the release of 3 million gallons of toxic, metal-filled mine runoff. The bright orange water flowed into the Animas River and down through the picturesque mountain town of Durango, Colorado, threatening the livelihood of many who rely on the river.

One of those is the family that owns James Ranch, north of the city in the Animas Valley. The James family has farmed their 400 acres since 1954, pulling water from the Animas River to irrigate crops, provide drinking water for their grass-fed, organic beef cattle and much more. Without the water from the river, James Ranch—which grows vegetables and flowers to sell at their farm store, and raises organic, grass-fed cattle—might not be sustainable.

Now they've turned off all their irrigation. The crops are in danger. Joe and Jennifer Wheeling stand to lose tens of thousands of dollars. "If it doesn't rain and we don't get EPA water, we're on early vacation," says Jennifer Wheeling (Jennifer's father started the ranch; she took her husband's surname upon marriage). "And it's our community who will suffer."

In the interest of full disclosure, I've lived in Durango for four years. I know many people in local government from my time as a volunteer firefighter and my (failed) run for city council—and it's a small town. I live less than two miles from the river, and I buy half a cow every year from the James family.

The Wheelings sell their wares at the James Ranch market on their family land, at Durango's

weekly farmer's market, and to a number of restaurants in the tourist town. Jennifer told me about customers at the farmer's market crying over the damage to the river, wondering what might happen to the Ranch.

The Wheeling's entire tomato crop, worth thousands of dollars, will be lost if they can't water them soon.

In this part of Colorado, distrust for the state government in Denver is overshadowed only by distrust for Washington. The EPA-caused spill—and the local perception of poor communication that followed—has only increased that distrust. The EPA has promised to reimburse local residents and business owners for damages, but that could take months and the Wheeling's are skeptical of the EPA's response.

EPA officials in Durango told me that affected residents or businesses will get access to clean drinking and irrigating water. But the Wheelings haven't been able to water their crops in nearly a week, and say that they're getting nowhere with the EPA.

Desperate, they called in a political favor: An aide to Michael Bennett, one of Colorado's senators, is a huge fan of the Wheeling's sugar snap peas. The Wheelings called the aide, and he got Senator Bennett to make a call to the EPA. Thanks to their political connections, the Wheelings are expecting delivery of a 1,600-gallon tank and clean water for it on Wednesday, but it may not be enough to save their tomato, squash, pumpkin and flower crops—not to mention those sugar snap peas. After that, they may well be on their own. "The season may be over and we don't have anything to sell, but we'll keep the ground fertile," says Jennifer. "If we have to back away and our customers won't get their red tomatoes, that's life in agriculture."

David Ostrander, unified commander for the EPA response in Colorado, told me that the EPA was not, in fact, planning on providing clean water for irrigation uses anywhere else because of the volume required. The agency will only provide clean water for livestock and domestic uses.

Farmers aren't the only people taking a hit. Local rafting companies, finishing up one of their best years in recent memory, have cancelled thousands of reservations. And even though the river now looks mostly back to normal, reports in the international press that used a now-famous photograph showing the river turned bright orange, have many local tourism advocates worried.

“The message is: Durango is open for business,” says Jack Llewellyn, executive director of the Durango Chamber of Commerce. Water activities are still available at many local lakes and rivers, and Durango’s drinking water is completely safe. (It comes from a different river, to the east). A Colorado Parks and Wildlife spokesperson told me that the agency didn’t expect any impact on terrestrial wildlife because of the incident, and that hunting season would go forward as normal.

On Tuesday, Ostrander said that preliminary results on Animas River water around Durango indicated a return to pre-event levels, but it’s likely that much of the heavy metal content has ended up in sediment on the bottom of the river. The EPA expects to release more sampling data on Wednesday. EPA administrator Gina McCarthy has a planned visit that day, too.

Still, that heavy federal government presence is making some locals uneasy, their preexisting distrust for government officials multiplied by the fact that it was the EPA themselves that caused the mess. And it’s not just locals—Governor John Hickenlooper criticized the EPA in a Tuesday visit to a Colorado Parks and Wildlife fish hatchery along the Animas River. “You guys don’t call for days anyway,” the governor said, according to a report in the Durango Herald. Other local and state government officials similarly complained to me about poor communication from the EPA.

Though the EPA has repeatedly promised to clean up their mess and make things right, locals are much more interested in actions than promises. And either way, Durangoans are an optimistic bunch. We’ll get things back to normal again—with or without the government’s help.

Daily Caller:

<http://dailycaller.com/2015/08/12/congressmen-epa-must-answer-for-spilling-toxic-waste/>

Congressmen: EPA Must Answer For Spilling Toxic Waste

MICHAEL BASTASCH

1:17 PM 08/12/2015

Republican congressmen are calling for the EPA to be held accountable for spilling 3 million gallons of toxic mine wastewater into the Animas River last week, especially since the agency is a government entity and won't be punished to the same degree a private company would for spilling waste.

"The EPA must be held accountable for its actions," Rep. Lamar Smith told The Daily Caller News Foundation in an emailed statement. "If a private company caused such a disaster, it would be hit with substantial penalties and would be required to pay for cleanup."

"In this case, it will be the taxpayers who foot the bill," the Texas Republican said. "The EPA has an obligation to the families and businesses that have been devastated by this spill."

The EPA has taken the responsibility for the spill and agency chief Gina McCarthy is set to visit areas of Colorado and New Mexico that have been harmed by the spill. Both Colorado and New Mexico have declared a state of emergency and allocated funding towards helping those affected by the spill.

McCarthy's visit, however, is unlikely to be a happy one, as state officials and residents are furious with the agency for accidentally spilling millions of gallons of waste. The spill has already forced tourism businesses in the area to close until the contaminates in the river return to safe levels.

Republican lawmakers are already demanding the EPA turn over information on the spill and hold regular briefings with lawmakers on the agency's progress.

"This has and will continue to lead to significant economic damage to local businesses, farmers, tribes, and residents," Sen. Jim Inhofe, an Oklahoma Republican, said in a statement. "I will work within the Committee and with my colleagues in Congress to ensure the EPA is held accountable to this grave incident and that those impacted are provided the necessary support to move forward."

Republicans have specifically pointed out the EPA won't be subject to the same level of scrutiny as a private company would. As a government agency the EPA can't fine itself the way it would fine a private entity for spilling toxic waste. Many other mining companies have been fined millions of dollars for spills that were likely smaller than the one at Gold King Mine.

"Sovereign immunity. The government doesn't fine itself," Thomas Sansonetti, a former assistant attorney general at the Justice Department, told the Washington Times. "The EPA does not fine itself the way that you would fine an outside company like BP."

So how much would a private company have to pay for a spill of this size? It's not exactly clear, but it would likely be a sizable fine.

"The CWA does not specify how much a fine for this should be," M. Reed Hopper, an attorney with the Pacific Legal Foundation, told The Daily Caller News Foundation. "I believe the Army Corps of Engineers or EPA would have to take into account the amount of the spill, the harm done to the environment, and the negligence of the agency in causing the spill."

While there are many considerations that go into fining a private party for violating the CWA, the EPA's website contains information on the punishment for those who "negligently or knowingly" discharges pollutants "from a point source into a water of the United States without" a permit or in excess of a permit.

(Note: "knowingly" discharging a pollutant can apply to parties who may actually be aware they're violating the law)

The EPA's website says a negligent violation could carry a one-year penalty and/or \$2,500 – 25,000 per day" in fines — and that's per violation. The EPA adds that knowing violations can carry a "3 years and/or \$5,000 – 50,000 per day" penalty.

"So, the fine would be on some sort of sliding scale, but would be substantial for a private

party,” Hopper said. “Depending on the content of the discharged material, other federal laws may come into play such as CERCLA (Superfund) and clean up costs could be levied against the discharger at a very steep price. As for whether a private party would be criminally liable, some have gone to jail for less.”

Interestingly enough, private actors who have been found guilty of spilling waste in waterways have been fined millions of dollars. In March 2011, Consol Energy was fined \$5.5 million for violating the Clean Water Act (CWA) by emitting chloride and other pollutants into a West Virginia creek. On top of that, the company was forced to install \$200 million in water pollution controls.

That same month, Arch Coal was fined \$4 million for violating the CWA by discharging more waste into Appalachian waterways than their federal permits allowed. The company also had to take measures to ensure the spills never happened again. The next month, a subsidiary of Monsanto was slapped with a \$1.4 million fine for discharging wastewater with selenium and other heavy metals without a permit in Idaho — the company paid \$875,000 monitoring equipment.

From: Gong, Kristiene
Sent: Wednesday, August 12, 2015 1:10 PM
Subject: RE: CO Mine Spill Clips - 8/12

St. George News:

http://www.stgeorgeutah.com/news/archive/2015/08/12/mgk-colorados-mine-spill-not-expected-affect-washington-county-water-deliveries/#.Vctv2_1VhHw

Colorado's mine spill not expected to affect Washington County water

Written by Mori Kessler

August 12, 2015

WASHINGTON COUNTY – With eyes on the toxic plume of mine wastewater from the Gold King Mine in Colorado moving into the San Juan River and possibly Lake Powell, people have begun to ask the Washington County Water Conservancy District if the county water supply is at risk.

The short answer: No.

“Washington County Water Conservancy District does not anticipate any interruptions to water service in Washington County as a result of the San Juan River contamination caused by the Gold King Mine spill in Colorado,” WCWCD officials said in a press release Tuesday.

The county’s water supply comes from the Virgin River watershed, officials said. Water is currently not received from the San Juan River or Lake Powell.

The majority of the district’s water is collected from the Virgin River

“The majority of the district’s water is collected from the Virgin River at the Quail Creek Diversion and transported via pipeline to the county’s two largest off-stream reservoirs: Quail Creek and Sand Hollow,” officials said in the release.

Should there be any contamination in the area, the district’s water system is designed to allow the Virgin River to bypass it.

“Storage in the district’s reservoirs is adequate to serve municipal demands should collection of river water be temporarily ceased for any reason,” officials said.

Last week the Gold King Mine in Colorado began to spill toxic wastewater into Colorado River after a cleanup crew under the Environmental Protection Agency accidentally released it. The toxic water turned the river orange and then yellow for some 40-60 miles as it drifted

downstream.

It is estimated by the EPA that 3 million gallons of the wastewater was released into the Colorado River

As of Sunday, it is estimated by the EPA that 3 million gallons of the wastewater was released into the Colorado River. Contaminants include heavy metals, including lead and arsenic.

Sen. Orrin Hatch, senior Republican in the Senate, has called for change at the EPA in the wake of the spill.

“Going forward, I will do everything in my power to ensure that the EPA cleans up this mess and ensures that mistakes such as this don’t happen again,” Hatch said, and added:

This disaster emphasizes the need for the EPA to focus on fulfilling its existing responsibilities, instead of focusing its resources on imposing expensive new regulations that kill jobs and hurt family budgets.

In San Juan County, access to drinking water from the river has been shut off for the time being. Fresh water is being trucked in for county residents in affected areas.

The Utah Department of Environmental Quality is currently testing parts of the San Juan River to determine the overall water quality and assess any potential risks.

“As the contaminated water makes its way west into Utah, I’m highly concerned about its effects on the water upon which our agriculture, industry, recreation, and municipalities depend,” Hatch said.

Depending upon how much the toxic plume dilutes, the minimal could be minimal, though nothing will be known sure until testing is completed, state officials said.

The EPA has not said how long cleanup efforts will take.

Newser:

<http://www.newser.com/story/211215/toxic-water-still-leaking-into-colorado-river.html>

Toxic Water Still Leaking Into Colorado River

OTHER ABANDONED MINES ARE NOW THE ISSUE, OFFICIALS SAY

By Arden Dier, Newser Staff

Posted Aug 12, 2015 11:37 AM CDT

(NEWSER) – The wastewater spill into Colorado's Animas River isn't just more severe than the Environmental Protection Agency initially estimated: It's steadily getting worse in terms of volume, even a week after the initial incident. Between 500 and 700 gallons of metal-laced water is still spilling from the abandoned Gold King Mine each minute—enough water to fill an Olympic-sized swimming pool per day, at least—though experts are treating the water in emergency settling ponds, the New York Times reports. The Denver Post reports another 540 to 740 gallons of acid drainage is flowing each minute from three adjacent mines, while many others are reportedly leaking.

The water is "loaded with dissolved metals...even though the river now looks clear," says the director of Colorado's abandoned mines reclamation program. "We had a disaster last week—a surging amount of water coming out. That same amount of water is coming out over six months and harming the Animas." He demands the EPA work to solve the problem. "We're working tirelessly to respond and have committed to a full review of exactly what happened to ensure it cannot happen again," an EPA rep says of the Gold King Mine leak. The Post reports state mining officials plan to deliver a map of 200 leaking mines to Gov. John Hickenlooper by tomorrow.

KTVQ:

<http://www.ktvq.com/story/29770397/spill-sheds-light-on-legacy-of-abandoned-mines-out-west>

Spill sheds light on legacy of abandoned mines out West

By CBS News

A week ago, the Animas River was best known as a popular white water rafting destination and its pristine water prized by residents in Colorado and New Mexico.

Today, it serves as a troubling reminder of the legacy left behind by the abandoned gold and silver mines that dot much of the West.

Last Wednesday, a crew working for the Environmental Protection Agency accidentally breached a dam holding back heavy metals used in the defunct Gold King Mine near Silverton, Colorado that sits at an elevation of about 11,000 feet.

As a result, 3 million gallons of toxic waste are now pushing down the Animas and San Juan rivers that cross Colorado, New Mexico and Utah, turning the waterways a sickly yellow-orange. Initially, the EPA estimated the plume carried at least 200 times more arsenic and 3,500 times more lead than is considered safe for drinking.

So far, there are few signs that wildlife has been harmed but residents living along the rivers are concerned the toxic brew could contaminate their drinking water, prompting the EPA to launch a series of tests along the rivers. EPA Administrator Gina McCarthy said Tuesday the agency "is taking responsibility to ensure that it is cleaned up."

Even when this abandoned Colorado gold mine is finally plugged and the water treated, the problem with abandoned mines is unlikely to go away.

"I think this was a disaster waiting to happen," Lauren Pagel, policy director for Earthworks, a nonprofit that works to highlight the adverse impacts of mining, told CBS News.

"There are similar mines across the West that are currently polluting our waterways at a slower rate than this unfortunate disaster," she said. "There are very few funds to clean them up and stop another disaster like this from happening."

There are hundreds of thousands of abandoned mines out West. Many hold tens of billions of tons of waste containing arsenic, asbestos, cadmium, cyanide and mercury.

For decades, the dangers of abandoned mines have been well understood, but a mix of political inertia and lack of funds has stymied efforts to clean up the problem.

"This is a problem everyone has known about and we all predicted there would be a catastrophic failure at some point," said Mark Williams, a fellow at the Institute of Arctic and Alpine Research at the University of Colorado Boulder.

A 1993 report from the Mineral Policy Center (now known as Earthworks) found that there were 557,650 abandoned mine sites in 32 states and that the cost then of cleaning them up was as much as \$72 billion. The majority of these mines are located out West in Colorado, Utah, Arizona, New Mexico and California.

Known as hard rock mines, many date back to the height of the California Gold Rush in the 1800s. Miners swept across the Rocky Mountains in search of gold and silver in the 1870s and 1880s. The bulk of the mines were exhausted by World War I.

The mine owners left behind as much as 50 billion tons of untreated, unreclaimed mining waste. The Mineral Policy Center report found they have already polluted 12,000 miles of the nation's waterways and 180,000 acres of lakes and reservoirs and "are a growing threat to underground aquifers."

In California, the legacy of the gold rush still haunts the state. A report from the Sierra Fund found that "mercury, acid mine drainage, and other contaminated sediments left behind from mining threaten the water, plants, and people of the entire state."

KESQ:

<http://www.kesq.com/news/the-real-culprit-in-the-animas-river-spill/34674998>

The real culprit in the Animas River spill

By Lauren Pagel

POSTED: 09:47 AM PDT Aug 12, 2015

(CNN) -

Last Wednesday, the United States experienced one of its worst hardrock-mining-related disasters in decades, and I wish I could say that I was surprised.

A gold mine that has been inactive since 1920 spilled 3 million gallons of toxic mining waste into the Animas River in Colorado after contractors working for an Environmental Protection Agency cleanup team using heavy equipment accidentally sent it flowing into the waterway. The spill has spread from Colorado into New Mexico and now into Utah -- affecting over 100 river miles.

What the headlines and photos of bright orange rivers fail to convey is that this mine and thousands of others like it across the country perpetually leak this type of mine pollution into our waters.

If there is anything I have learned from the past 15 years of working on this issue, it's that absent strong regulations and better-designed mines, mining companies will continue to pollute with impunity.

Earthworks estimates that there are over 500,000 abandoned and inactive hardrock mines strewn across the country, with a hefty price tag attached to their clean up -- \$50 billion, according to an EPA estimate.

Western communities face significant burdens associated with these old mines -- ranging from a disaster from a failed cleanup like the one that occurred last week, to more persistent water pollution issues, and the ever-present danger of improperly secured underground mines that pose a serious threat to public safety. At least 40% of the streams feeding the headwaters of Western watersheds are polluted from mining. That's because many mines -- like Gold King -- have significant acid mine drainage problems, which can persist for thousands of years if left untreated.

Unfortunately, in the 25 years since Earthworks first published our report on the legacy of abandoned mines, not much has changed. The reason for the lack of action is the antiquated law, 143 years old and counting, that still governs hardrock mining on public lands throughout the West.

President Ulysses S. Grant signed the 1872 Mining Law to help settle the West. And even though the West has surely been settled, this law is still on the books -- unchanged. It allows corporations, foreign and domestic, to take public minerals, owned by us, the taxpayers, for free. It contains no environmental provisions, requires no cleanup after mining is over, and unlike the law governing coal mining, does not require hardrock mining companies to pay a fee to clean up the legacy of pollution.

This archaic law is why funds to clean up mines like Gold King remain limited, despite the magnitude of the problem, putting safe drinking water and our healthy environment at risk. A steady stream of long-term funding for hardrock mine cleanup, similar to the coal industry's abandoned mine fee, is essential to dealing with the scope of the problems we face from mine pollution.

U.S. Rep. Raul Grijalva, D-Arizona, has introduced legislation that would bring mining law into the 21st century. It would charge the mining industry a modest reclamation fee that would generate \$200 million per year to fund abandoned mine restoration and create an estimated 13,000 annual jobs. HR 963, the Hardrock Mining Reform and Reclamation Act of 2015, can protect communities, precious water resources and help avert future disasters.

Westerners should stand up and take notice: Our communities are at risk. This is not our first mining disaster and it won't be the last. Until we tackle the root cause of mining pollution and modernize the 1872 mining law, we are gambling away our most precious resource, water.

From: Gong, Kristiene
Sent: Wednesday, August 12, 2015 12:02 PM
Subject: RE: CO Mine Spill Clips - 8/12

Denver Post:

http://www.denverpost.com/news/ci_28626632/animas-river-lawsuit-against-epa-table-colorado-ag

Animas River lawsuit against EPA 'on the table,' Colorado AG says

Cynthia Coffman says she will explore suit while meeting with her New Mexico, Utah counterparts

By Jesse Paul

DURANGO — Colorado Attorney General Cynthia Coffman said Wednesday that a lawsuit against the Environmental Protection Agency is "on the table" after a massive wastewater spill caused by the agency fouled the Animas River last week.

"I would hope that it would not be necessary," Coffman, a Republican, said. "The statements by the (EPA's administrator) indicate the EPA is accepting responsibility for the accident. The

question is: What does that mean? What does accepting responsibility mean?"

Coffman talked about Colorado's legal response with The Denver Post as she prepared to meet with her counterparts from New Mexico, Democrat Hector Balderas, and Utah, Republican Sean Reyes.

Coffman said she already has been in contact with Balderas and Reyes over the phone.

"The federal government and the EPA have some immunity from legal action," Coffman said. "It depends on the circumstances. It is not impossible for a state to sue."

Three million gallons of mine wastewater spilled into Cement Creek then onto the Animas River on Aug. 5 after it was released by the EPA at the Gold King Mine near Silverton. It is one of many mine sites in the area that is releasing heavy metals into the river's flow.

In the spill's wake, a drumbeat of politicians throughout the southwest have come forward to lambast the EPA on its response and the dearth of information they've released.

Gov. John Hickenlooper on Tuesday in Durango said that while he was angered by the EPA's initial response to the spill, he is now looking forward to what can be done in the future.

Coffman said any potential legal action taken against the EPA would look at natural resource damages, costs of remediating the river and the surrounding land and any wildlife impacts.

"With heavy metal discharge like we're seeing, from a mine with arsenic, lead and copper and cadmium, my understanding is you don't often see the results in fish for two to three years," she said. "As heavy metals sink they become a part of the river and have a longer term impact."

Coffman said a claims process set forth by the EPA this week is a start, but it remains to be seen if it will be enough.

The attorneys general meeting comes as EPA chief Gina McCarthy is scheduled to visit Durango and Farmington, N.M., on Wednesday. McCarthy on Tuesday said that her agency accepted "full responsibility" for the spill, and said the agency was "absolutely deeply sorry" and that it expects

lawsuits.

The EPA says the McCarthy will speak to the media at 2 p.m. in Durango outside of a command post set up in the wastewater spill's aftermath.

McCarthy's media availability was announced Wednesday morning and is set for the same time as the three attorneys general were slated to speak at a previously scheduled news conference at a different location.

This is a developing story that will be updated.

Live Science

<http://www.livescience.com/51831-colorado-mine-spill-cleanup.html>

Colorado Mine Spill Aftermath: How to Clean a River

by Stephanie Pappas, Live Science Contributor

August 12, 2015 10:29am ET

On Aug. 5, Environmental Protection Agency (EPA) workers inadvertently breached a wall of loose debris that was holding back a pool of mustard-hued wastewater from the abandoned Gold King Mine near Silverton, Colorado.

With a sudden gush, some 3 million gallons (about 11 million liters) of acidic, heavy-metal-laden water flooded into Cement Creek, a tributary of the nearby Animas River. From there, the plume headed downstream into the San Juan River (a major tributary of the Colorado River), headed for New Mexico and, eventually, Lake Powell on the Utah-Arizona border.

On the way, the plume traveled through Durango and Navajo Nation land in New Mexico, forcing warnings against touching the water, drinking it or using it for irrigation. The EPA is now scrambling to clean up the mess.

But how do you clean up a river? The answer, according to the agency and an outside expert, is twofold: treatment and dilution.

The Gold King Mine is one of an estimated 23,000 abandoned mines dotting the state of Colorado. Prospectors and mining companies dug gold-bearing ore and other precious metals out of the ground in the state for decades, but they had little responsibility for cleaning up after the mines closed. It wasn't until the federal Surface Mining Control and Reclamation Act passed in 1977 that mining operators had to create a plan for cleaning up defunct mines.

That act established funding for states to clean up long-abandoned mines, like the Gold King (which closed in the 1920s). But funds, drawn from taxes on coal-mining companies, are limited. The Colorado Division of Reclamation Mining & Safety gets about \$2 million a year, and that amount has allowed the closing of 6,127 abandoned mine shafts in the state since 1980. But that state agency has almost no money for environmental remediation beyond simply closing entrances and preventing mine collapse. There have been previous efforts to turn the area around the Gold King Mine into a Superfund site, which would fast-track funds for the containment of any toxic waste. But local opposition sunk those plans.

Meanwhile, abandoned mines leak out toxic wastewater all over the state. The EPA was working at the Gold King Mine as part of an effort to slow acidic mine water that was leaking into Cement Creek from the Red and Bonita Mine farther down the mountain. The plan was to build a cement bulkhead to plug the leak, with pipes that would allow the slow release and treatment of water. Instead, the crew's machinery breached a debris wall that was holding back the nasty brew lurking in the Gold King Mine.

The mine water is toxic because it contains dissolved pyrite, or iron sulfide, better known as fool's gold. The combination of iron sulfide, water and oxygen results in the formation of sulfuric acid.

"All you need is air and water" to create acid mine drainage, said Ron Cohen, a professor of civil

and environmental engineering at the Colorado School of Mines who has been involved in mine remediation internationally.

This acidic water then leaches heavy metals — such as zinc, lead and cadmium — from the ground. Arsenic levels also spiked after the mine blowout to more than 25 times the state limit for water safety. The mustard-yellow color of the water is caused by oxidized iron, Cohen said — similar to the rust on an old nail.

"The old-timers used to call it 'yellow boy,'" he said.

The EPA's emergency cleanup is a quick version of typical mine treatment. According to news releases, the agency has excavated four holding ponds below the mine breach. Crews are treating the water in these ponds with caustic soda (sodium hydroxide) and lime (calcium oxide), which are very basic in pH. The goal is to reduce the acidity of the water.

"When the water is rather basic in nature, considerably above pH 7 [neutral], most of your metals will come out of the] solution," Cohen told Live Science.

This process is often visible, Cohen said. Seemingly clear water will turn cloudy as the dissolved metals settle out.

The sludge left behind can be stripped of water and disposed of, Cohen said. Once they're not in their dissolved form, the metals are far less toxic to the environment.

On Aug. 10, the EPA reported that the water released from its treatment ponds was cleaner and less acidic than the water in Cement Creek had been even before the spill. The agency did not respond to requests for comment.

The EPA and other agencies are monitoring wildlife and testing water quality downstream from the mine, all the way into New Mexico. The good news, Cohen said, is that dilution and time

will likely go a long way toward mitigating the long-term consequences of the spill.

Three million gallons of water (which spilled out of the mine) equals approximately 400,000 cubic feet. That's no small amount, but about 8 million cubic feet of water flows through Cement Creek each day, Cohen said. As the contaminated water flows into larger and larger bodies of water, it will become increasingly diluted. Lake Powell currently holds about 560 billion cubic feet of water.

However, that dilution doesn't negate the ongoing challenges caused by Colorado's abandoned mines, which tend to wreak environmental havoc on their own. Many leak constantly at low levels, or release toxic waste during the spring melt each year. Others occasionally put out large pulses of contamination. In 2009, thousands of gallons of bright-orange mine waste poured into Clear Creek, west of Denver. Similar spills have happened at the California Gulch Superfund site near Leadville, Colorado, and at the Summitville Mine near Del Norte, Colorado. [10 of the Most Polluted Places on Earth]

"We've had many of these spills without the EPA's help," Cohen said. Many of the mines closed nearly a century ago, leaving no one to hold responsible for the mess.

"There is a real limitation due to resources — both human resources and money resources — to be able to go after these sites aggressively," Cohen said.

From: Ludwigsen, Emily
Sent: Wednesday, August 12, 2015 11:03 AM
Subject: RE: CO Mine Spill Clips - 8/12

The Daily Caller

<http://dailycaller.com/2015/08/11/will-epa-fire-contractors-that-caused-the-toxic-mine-waste-spill/>

Will EPA Fire Contractors That Caused The Toxic Mine Waste Spill?

Michael Bastasch

August 11, 6:12PM

The EPA has not yet decided what to do with the government contractors responsible for unleashing millions of gallons of toxic mine wastewater into a Colorado river.

“The decision about EPA contractors has not been made,” an agency spokeswoman told The Daily Caller News Foundation. The agency did not respond to TheDCNF when asked when that decision would be made.

Last week EPA contractors accidentally released three million gallons of toxic mine wastewater from Colorado’s Gold King Mine while using heavy equipment. They were attempting to open the mine up so they could treat the wastewater inside, but instead released toxic waste and turned the Animas River bright orange.

Preliminary tests by Colorado officials, however, showed the Animas River “doesn’t appear” to carry a public health risk. After initially spiking, “the metal levels along the river in the Durango area have returned to pre-incident levels,” according to CNN. The contaminates eventually found their way to New Mexico, and the state declared a state of emergency.

Republican Gov. Susana Martinez issued an executive order Monday which gives \$750,000 to test well water, study the spill’s long-term effects and support state agency responses to the spill. The state’s environmental department also got another \$500,000 in emergency funds.

“Until we can advise New Mexicans that our water and the Animas River are safe, once again, we continue focusing on fixing the problem, not the blame game,” a spokeswoman with the New Mexico Environment Department told TheDCNF. “Ultimately we will ensure that New Mexico is fairly compensated for the activities associated with EPA’s Gold King Mine spill.”

Republican lawmakers are demanding answers from the EPA regarding the Gold King Mine

spill. Southern Coloradans living downstream are furious with the EPA and some are worried tourism will be negatively impacted.

"The river is basically closed so that shuts down all the rafting," Andy Corra, the owner of 4Corners Riversports, told CNN. "They're losing all their revenue."

"One day business is booming, and the next day, boom, it's shut off," Corra said. "It's a huge bummer for the whole industry."

EPA Chief Administrator Gina McCarthy will travel to the regions affected by the spill. The agency has set up a website to continually update the public on spill cleanup operations.

"This is a tragic and unfortunate incident, and EPA is taking responsibility to ensure that it is cleaned up," McCarthy said at an event Tuesday. "We are committed to helping the people throughout the Four Corner Regions who rely on these rivers for their drinking water, irrigation water and recreation. We know how important it is to them."

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KUNC

<http://www.kunc.org/post/animas-river-spill-stark-reminder-colorados-mine-pollution-legacy#stream/0>

Animas River Spill A Stark Reminder Of Colorado's Mine Pollution Legacy

Stephanie Paige Ogburn

August 11, 11PM

Say the names of these Colorado towns out loud: Silverton. Leadville. Silver Plume. Rico. Bonanza. Ironton. The last two are ghost towns, but the names of each allude to a history that - most of the time - is nearly invisible to most of the state's residents.

That mineral-rich past burst into the public consciousness after Environmental Protection Agency workers mistakenly triggered a release of contaminated water from the Gold King mine just above Silverton. The rust-colored water, laden with iron and several heavy metals, including very high concentrations of arsenic and lead, oozed its way down the Animas River, through the town of Durango and into New Mexico and beyond.

In the spill's wake, many questions have been raised. One is, just how big is the scale of mining wastewater problems in Colorado? Another is, what is being done to clean them up?

Look at a map plotting abandoned mine lands across Colorado, and you'll see a Jackson Pollock-esque spray of colored dots - gold, silver, lead, uranium - scattered atop and between mountain ranges. Colorado has a whole branch under its Department of Natural Resources called the Inactive and Abandoned Mine Reclamation Program. The head of the branch, Bruce Stover, said the state has been working for years to address the issue of pollution from approximately 22,000 abandoned mines.

"We try to go in and characterize which mines are the worst offenders. Is it this drain over here, is it that waste pile over there? And we try to do projects that incrementally chip away at the overall problem," said Stover.

The work is certainly incremental. When asked how long it would take to clean up even three-quarters of the mines leaking hazardous materials, Stover sighed, and said "decades. It's just going to take a long time."

That's partly because there's not nearly enough money to pay for cleanups. Stover notes most of these mines don't have owners now. So there's no responsible party to foot the bill.

"It's a huge problem in Colorado because these are old, abandoned active mines and they don't have any owners and they are just draining."

Which gets to the next issue: who pays for cleaning up mines without owners?

Turns out, it's you. The funding for cleanups, according to Stover, comes largely from the Environmental Protection Agency. Sometimes it's under Superfund, but more often it comes from funds that help states meet Clean Water Act standards.

"The state doesn't really have the money to tackle these draining mines," Stover said.

Neither state nor federal agencies were able to provide a list of all the streams in Colorado impaired by acid mine drainage, which often causes high acidity and heavy metal concentrations. EPA data from 2010 does give a sense of the problem's scope, though. The agency reports 200 miles of streams in the state were too acidic to meet Clean Water Act standards. On the metals side, over 1,000 miles of streams in Colorado exceeded Clean Water Act standards for copper. Other metals that leach from mines, like lead, zinc, cadmium and arsenic are also causing problems in many hundreds of miles of streams.

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Sky News

<http://www.skynews.com.au/news/world/nthamerica/2015/08/12/toxic-spill-from-us-mine-still-on-the-move.html>

Toxic spill from US mine still on the move

August 12, 9:02AM

Environmental scientists have tested a key US river for signs of a toxic waste spill from a botched Colorado mine clean-up that prompted a state of emergency in the country's southwest.

What started as an 11.4 million litre orange-hued plume last Wednesday in the swift-moving

Animas River dissolved from view as it made its way down the slower San Juan River in New Mexico.

No longer easily visible, it was nevertheless flowing on into Utah and the Lake Powell reservoir in the direction of the Colorado River and Grand Canyon, leaving behind questions as to its long-term effect.

'It's so diluted, you can't really see it,' Donna Spangler, a spokeswoman for the Utah Department of Environmental Quality, told AFP by telephone.

Intensive water testing is nevertheless underway for signs of such cancer-causing toxins as lead and arsenic, with results expected in a matter of days.

The spill prompted states of emergency to be declared in Colorado, New Mexico and the vast Navajo Nation reservation that straddles state lines.

Towns along the Animas and San Juan stopped drawing water from the two rivers, and kayakers and rafters were told to stay on land until Monday at the latest.

The spill, estimated to be 130km long, was a major embarrassment for the Environmental Protection Agency (EPA), the federal government agency charged with combating pollution.

It was supervising an attempt to halt a slow leak of toxic waste from the long-abandoned Gold King mine near the Colorado town of Durango when an earth-moving backhoe unleashed a deluge instead.

From: Ludwigsen, Emily
Sent: Wednesday, August 12, 2015 10:49 AM

Subject: RE: CO Mine Spill Clips - 8/12

ABC News

<http://abcnews.go.com/WNT/video/state-emergency-colorado-toxic-river-heading-grand-canyon-33001311>

**State of Emergency in Colorado Over Toxic River Heading Toward the Grand Canyon
(Video)**

August 12

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Associated Press (via AOL)

<http://www.aol.com/article/2015/08/11/navajo-president-epa-says-spill-cleanup-could-take-decades/21221413/>

Navajo president: EPA says spill cleanup could take decades

Susan Montoya Bryan and Ellen Kickmeyer

August 11, 6:29PM

ALBUQUERQUE, N.M. (AP) — Townspeople affected by the millions of gallons of waste spilled from an abandoned gold mine and now flowing through their communities demanded clarity Tuesday about any long-term threats to their water supply.

Colorado and New Mexico made disaster declarations for stretches of the Animas and San Juan rivers and the Navajo Nation declared an emergency as the waste spread more than 100 miles downstream, where it will reach Lake Powell in Utah sometime this week.

EPA workers accidentally unleashed an estimated 3 million gallons of orange-yellow waste, including high concentrations of arsenic, lead and other potentially toxic heavy metals, while inspecting the long-abandoned Gold King mine near Silverton, Colorado, on Aug. 5.

EPA Administrator Gina McCarthy, who plans to tour the damage personally, said Tuesday in Washington, D.C., that she takes full responsibility for the spill, which she said "pains me to no end." She said the agency is working around the clock to assess the environmental impact.

EPA officials said the shockingly bright plume has already dissipated and that the leading edge of the contamination cannot be seen in the downstream stretches of the San Juan River or Lake Powell.

So far, the Bureau of Reclamation has no plans to slow flows on the lower Colorado River, below Lake Powell, where the water is a vital resource for parts of California, Arizona, Nevada, New Mexico and Utah.

Chris Watt, a bureau spokesman in Salt Lake City, said his agency is testing the water at the request of the EPA, and can't discuss the impact without learning the results.

None of this has eased concerns or quelled anger among people in the arid Southwest who depend on this water for their survival.

The Navajos, whose sovereign nation covers parts of New Mexico, Utah and Arizona, shut down water intake systems and stopped diverting water from the San Juan River. Navajo Nation President Russell Begaye told The Associated Press that regional EPA officials told him the cleanup could take decades.

"Decades. That is totally, completely unsettling," Begaye said. "This is a huge issue. This river, the San Juan, is our lifeline, not only in a spiritual sense but also it's an economic base that sustains the people that live along the river. You're taking away the livelihood and maybe taking it away from them for decades. ... That is just, to me, a disaster of a huge proportion. And we have yet to hear from the Obama administration."

Heavy metals from Gold King and other defunct mines in Colorado have been leaching out and killing fish and other species for decades as rain and snowmelt spills from mining operations left abandoned and exposed. The EPA has considered making part of the Animas River in Colorado a Superfund site for a quarter-century.

It would have provided more resources for a cleanup, but some in Colorado opposed Superfund status, fearing the stigma and the federal strings attached, so the EPA agreed to allow local officials to lead cleanup efforts instead.

Now the Attorneys General of Utah, New Mexico and Colorado are coordinating a response to ensure "whatever remediation is necessary occurs as quickly as possible," Utah Attorney General Sean Reyes said in a statement.

Utah Gov. Gary Herbert expressed disappointment with the EPA's initial handling of the spill, but said the state has no plans for legal action. New Mexico Gov. Susana Martinez, however, said she would not take anything off the table and that the EPA should be held to the same standards as industry.

"Right now we have people preparing for a lawsuit if that is what we need to do," she said Tuesday.

Colorado Gov. John Hickenlooper, himself a former geologist, visited a contaminated stretch of river Tuesday and said he hopes a "silver lining" to the disaster will be a more aggressive state and federal effort to deal with mining's "legacy of pollution" across the West.

The EPA has said the current flows too fast for the contaminants to pose an immediate health threat, and that the heavy metals will likely be diluted over time so that they don't pose a longer-term threat, either.

Still, as a precautionary measure, the agency said stretches of the rivers would be closed for drinking water, recreation and other uses at least through Aug. 17.

Dissolved iron is what turned the waste plume an alarming orange-yellow, a color familiar to old-time miners who call it "yellow boy."

"The water appears worse aesthetically than it actually is, in terms of health," said Ron Cohen, a civil and environmental engineering professor at the Colorado School of Mines.

Tests show some of the metals have settled to the bottom and would dissolve only if conditions became acidic, which Cohen said isn't likely. He advises leaving the metals where they settle, and counting on next spring's mountain snowmelt to dilute them more and flush them downstream.

No die-off of wildlife along the river has been detected. Federal officials say all but one of a test batch of fingerling trout deliberately exposed to the water survived over the weekend.

As a precaution, state and federal officials ordered public water systems to turn off intake valves as the plume passes. Boaters and fishing groups have been told to avoid affected stretches of the Animas and San Juan rivers, which are usually crowded with rafters and anglers in a normal summer.

Farmers also have been forced to stop irrigating, endangering their crops, and recreational businesses report losing thousands of dollars.

"We had lots of trips booked. Right now we're just canceling by the day," said Drew Beezley, co-owner of 4 Corners Whitewater in Durango, Colorado. He said his dozen employees are out of work, and he's lost about \$10,000 in business since the spill.

"We don't really know what the future holds yet," said Beezley. "We don't know if the rest of this

season is just scrapped."

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Bustle

<http://www.bustle.com/articles/103558-photos-of-the-animas-river-spill-show-a-dangerously-toxic-orange-body-of-water-photos>

Photos Of The Animas River Spill Show A Dangerously Toxic Orange Body Of Water — PHOTOS

Greta Jochem

August 11, 6PM

The Animas river in Colorado is channeling its inner Donald Trump today ... as in, it's dyed orange.

According to ABC News, three million gallons of toxic waste water was accidentally released into the river by a group of EPA workers. The spill occurred on August 5 in Silverton, Colorado — an area in the southwestern part of the state — and photos show a devastating sight. "Everybody in town knew it was coming. It was hard to wake up in the morning and see an orange river," Tom Bartles of Durango, Colorado told CNN.

The orange color is more than just eye-catching — it's potentially dangerous. According to CNN, officials said that the spill carries pollutants like iron, zinc, and copper. For example, on Thursday, the EPA found that the river's arsenic concentration was 26 times higher than what they consider a safe amount. Lead levels are reportedly 12,000 times higher than the recommended limit.

How did this happen? Colorado Public Radio explains that the EPA was trying to clean waste from an old mine by building a drain pipe. Their plan backfired when they dug into the dam holding back the water and found that it was made of soil instead of rock. The water then flowed

out, contaminating the river. The EPA's director of emergency preparedness in the region, Dave Ostrander, said, "We typically respond to emergencies, we don't cause them. But this is just something that happens when we're dealing with mines sometimes."

Here's a sad look at what the Animas River looks like right now.

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USA Today

<http://www.usatoday.com/story/news/2015/08/11/epa-targeted-lawsuits-wake-toxic-spill-river-colorado/31489461/>

EPA targeted for lawsuits in wake of toxic spill in river in Colorado

Rick Jervis

August 11, 7:15PM

Victims of the contamination of the Animas River in Colorado could take the Environmental Protection Agency to court to seek damages, but it could be a long, tough legal battle that may not pay off at the end, according to environmental law experts.

The spill of an estimated 3 million gallons of toxic wastewater into the river by a team of EPA contractors has infuriated residents and local officials who live along the winding 126-mile-long waterway and spurred some to threaten lawsuits. The head of the Navajo Nation, Russell Begaye, downriver from the spill, directed his legal team to file a lawsuit against the EPA.

Unlike the U.S. president, the EPA is not immune to lawsuits, said Kevin Mayer, a Washington-based environmental lawyer. Typically, individuals or local governments sue the EPA over the rules it sets for environmental protection, he said. In this case, it could be sued for something it actually did, Mayer said.

"The question is: Did the EPA act negligently?" he said. "Did it do something or fail to do

something that a prudent person would have done in this circumstance?"

Lawsuits against the EPA are not uncommon. Texas has sued the EPA 21 times since President Obama took office in 2009, but has only won six of those cases, according to an analysis by the Texas Tribune. More than a dozen coal-reliant states have also filed recent lawsuits against the EPA in an effort to block proposed rules designed to cut greenhouse gases.

The Colorado case, however, has a more direct link to the federal agency. The spill occurred Friday when an EPA team disturbed a dam of loose rock lodged in the mine, sending a plume of mustard-colored water rushing out of the Gold King Mine and south through Colorado and into New Mexico.

An EPA spokesman said the agency wouldn't comment about pending lawsuits. The agency has set up a claims process to compensate residents affected by the spill.

Colorado Gov. John Hickenlooper on Tuesday toured the impacted areas of the river and said much of the wastewater had been plugged up, but urged the EPA to speed up work to identify the most dangerous areas and clean them up.

Officials with the New Mexico Environment Department said they're focused on testing the water for pollutants rather than pointing fingers. "Until we can advise New Mexicans that our water and the Animas River is safe once again, we continue focusing on fixing the problem, not the blame game," department spokeswoman Allison Majure said in a statement. "Ultimately, we will ensure that New Mexico is fairly compensated for the activities associated with EPA's Gold King Mine spill."

Some state officials in the impacted areas have criticized the EPA for waiting 24 hours before notifying state agencies of the spill, an issue that could bode well for plaintiffs in court, Mayer said.

But exemptions written into some U.S. environmental laws, such as the Clean Water Act and the Oil Pollution Act, protect the EPA and other federal agencies from liability during hazardous

waste spills, said Bob Irvin, an environmental attorney and president of American Rivers, a national non-profit river conservation group.

Federal lawyers could also tie up lawsuits for years, much the way lawsuits against the federal government after the levees failed in the wake of Hurricane Katrina in 2005 were stalled, he said. Two years ago, a U.S. district judge dismissed the bulk of the Katrina lawsuits.

"These things take forever," Irvin said. "You're probably a lot better off getting your claim resolved through the claims process the EPA has established."

From: Ludwigsen, Emily
Sent: Wednesday, August 12, 2015 10:16 AM
Subject: RE: CO Mine Spill Clips - 8/12

Al Jazeera America

<http://america.aljazeera.com/articles/2015/8/12/toxic-spill-leaves-navajo-farmers-in-murky-water.html>

Navajo Nation declares state of emergency over 'tragic' spill

Tristan Ahtone
August 12, 5AM

NAVAJO NATION — Farmers and ranchers on the Navajo Nation are preparing to take heavy losses this season as a plume of wastewater laced with toxic chemicals flows south from an abandoned mine in Colorado.

Last week, the Environmental Protection Agency spilled around three-million gallons of contaminated water into the Animas River. According to the EPA, the incident occurred when a crew hired to pump and treat wastewater inside the abandoned Gold King Mine outside of Durango, Colorado, accidentally released a brew of arsenic, cadmium, lead and other heavy metals from a mine tunnel.

As a precautionary measure, the Navajo Nation has asked citizens to keep livestock away from the San Juan River and stop diverting water from the river for crops. That means farmers like Lorenzo Bates are beginning to plan for the worst.

"What is in the water? To what extent are those heavy metals?" said Bates, speaker of the Navajo Nation Council and farmer from Upper Fruitland, New Mexico.

Without access to water from the San Juan, Bates' alfalfa field can no longer be watered, and he has to give his horses and cattle water from a municipal line, which means his cows are getting skinny.

"Each day that they're in this pen, even though we've got water, they're still losing weight," said Bates. "It's costing me."

Earlier this week, the Navajo Nation announced it was planning lawsuits against the EPA and owners of the Gold King Mine. And the City of Durango and La Plata County in Colorado, where the spill originated, have declared states of emergency with New Mexico and the Navajo Nation following suit.

"This is a tragic and unfortunate incident, and the EPA is taking responsibility to ensure that it is cleaned up," said EPA administrator Gina McCarthy in a statement earlier today. "The most important thing throughout this is ensuring the health and safety of the residents and visitors near the river. We are committed to helping the people throughout the Four Corners Regions who rely on these rivers for their drinking water, irrigation water and recreation."

In Farmington, New Mexico, officials are encouraging residents to bring water samples from home to be tested. Ryan Flynn is secretary of the New Mexico Environment Department. He says so far it doesn't look like the spill has affected local drinking wells.

“Short term I think we’re going to just focus on the chemistry in the river and how that’s interacting with the contaminants, how the river is influencing groundwater, and that will give us enough to really get people using water again or knowing when it will be safe to do so by treating it,” said Flynn. “Long term, it’s too early to tell.”

Meanwhile, the Gold King Mine continues to leach contaminants into the Animas River, which means Navajo farmers downstream like Bates are stuck waiting on guidance from officials on whether the water is safe to use or not.

“There are farmers all the way down this valley that are impacted,” said Bates.

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Associated Press (via Las Vegas Sun)

<http://lasvegassun.com/news/2015/aug/12/fearing-stigma-colorado-contested-superfund-status/>

Fearing stigma, Colorado contested Superfund status for mine

Ivan Moreno and Ellen Knickmeyer

August 12, 2AM

DENVER —

The U.S. Environmental Protection Agency took full responsibility Tuesday for the mine waste spoiling rivers downstream from Silverton, Colo., but people who live near the idled and leaking Gold King mine say local authorities and mining companies spent decades spurning federal cleanup help.

They feared the stigma of a Superfund label, which delivers federal money up-front for extensive cleanups. They worried that corporations would kill a hoped-for revival in the area’s mining industry rather than get stuck with cleanup costs. And some haven’t trusted the federal government, townspeople say.

The EPA pushed anyway, for nearly 25 years, to apply its Superfund program to the Gold King

mine, which has been leaching a smaller stream of arsenic, lead and other wildlife-killing heavy metals into Cement Creek. That water runs into the Animas and San Juan rivers before reaching Lake Powell and the lower Colorado River, a basin serving five states, including Nevada, Mexico and several sovereign Native American nations.

As millions of gallons of spilled sludge spread hundreds of miles downstream Tuesday, officials from the century-old mining towns of southwest Colorado defended their opposition to federal help.

Mining companies don't like to invest in Superfund sites because they're heavily scrutinized and more costly to develop, said Ernest Kuhlman, a San Juan County commissioner and Silverton's former mayor.

Also, the stigma could have scared away rafters and anglers who helped bring \$19 billion in tourism money to Colorado last year.

"How many people want to go to a Superfund site for tourism or recreation?" Kuhlman asked.

Now they've got a bigger problem: Last Wednesday, a small EPA-supervised work crew inspecting the Gold King mine accidentally knocked a hole in a waste pit, releasing at least three million gallons of acidic liquid laden with toxic heavy metals. Dissolved iron in the waste plume — familiar to miners as "yellow boy" — turned the area's scenic waterways a shocking orange hue.

The EPA ordered stretches of the rivers closed for drinking water, recreation and other uses at least through Monday. Colorado and New Mexico made disaster declarations. The Navajo Nation declared an emergency, saying that at least 16,000 of its people, 30,000 acres of crops and thousands of livestock survive on water that's now off-limits.

In Washington, EPA administrator Gina McCarthy took full responsibility, saying "I am absolutely, deeply sorry that this ever happened." She planned to tour Farmington and Durango, two of the cities most affected by the orange sludge.

Since 1980, Superfund designation has helped remove or contain hazardous waste posing immediate dangers to human health. New York's Love Canal, where hundreds of families had to be evacuated from homes built over a former chemical dump, spurred its creation, and many still associate that scandal with the program.

Asked if Superfund designation could have helped to prevent this accident, regional EPA administrator Shaun McGrath indicated it could have.

"Being listed under a national-priorities list ... makes available to a cleanup effort resources under the Superfund, which are significant resources," McGrath said. "And it does allow for potentially more extensive cleanup."

Fears that a Superfund site nearby will sink property values and chase away investment are common in America; numerous studies have explored this topic.

But "normally, people want it to be cleaned, so if that's the best way of moving through it, generally communities want" Superfund designation, said Katherine Kiel, who teaches at the College of the Holy Cross in Worcester, Mass.

As many as 500,000 mines have been abandoned in the U.S., legacies of the booms and busts that follow swings in metals prices, according to the U.S. Bureau of Land Management. Many date to the late 1800s, and have been exposed to the elements for many years, their tunnels filling with snowmelt and rain that leaches underground.

Bill Simon, a coordinator for the Animas River Stakeholders Group, said cleanup negotiations have focused on 33 of the most contaminated mines and 34 mine waste sites, out of an estimated 3,000 in the Animas river basin, but work has been stalled by questions about who will ultimately pay for it.

The biggest Superfund proponents, he said Tuesday, are from downstream communities that fear pollution from mines will harm their economy and want federal help to clean it up as quickly and effectively as possible.

On the other side are people in Silverton who fear reduced property values and a loss of local control to a federal bureaucracy, Simon said, and they're backed by some of the world's biggest mining interests.

In 2011, Canada's Kinross Corporation, which owns the area's Sunnyside mine, offered \$6.5 million to help clean mining waste from the upper Animas River, while vowing to "vigorously contest" any effort to make Sunnyside liable for Superfund-related cleanup costs.

Sunnyside has yet to spend the money, but continues to support a "collaborative approach" among various parties, Sunnyside reclamation director Kevin Roach said in an email Tuesday.

Mark Esper, editor of the Silverton Standard & the Miner's newspaper, hopes the spill will soften suspicions of federal involvement.

"One of the biggest concerns you hear about Superfund is, "Oh, the bad publicity we get," Esper said. "Well, it can't get much worse than this right now, frankly."

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Denver Post

http://www.denverpost.com/dnc/ci_28624900/willoughby-animas-spill-may-lead-more-attention-mining

Willoughby: Animas spill may lead to more attention on mining

Scott Willoughby

August 11, 9:44PM

There is good news — believe it or not — bad news and, most significant, revealing news seeping out along with the acidic heavy metals flooding into the Animas River basin this week.

The bad news, as most are by now aware, comes in the form of the sludgy orange cocktail of arsenic, lead, copper, cadmium and other heavy metals that poured into Cement Creek and the Animas on Thursday after an EPA crew accidentally triggered a blowout of the Gold King Mine near Silverton. An estimated 3 million gallons of mine wastewater flooded into the river and took the water well beyond the state water quality levels for several heavy metals, especially lead, which measured at an astounding 5,720 parts per billion (ppb) shortly after the spill. The acceptable threshold for the state's domestic water quality standard is 50 ppb.

Comparably elevated levels of cadmium, arsenic, iron, copper and manganese were recorded at a location 15 miles north of Durango a day after the Gold King blowout, although the levels of acidity had been severely lowered and contamination is expected to be further diluted over time.

And so begins the upbeat element of the report out of southwest Colorado.

Better still is that the initial impacts to fish swimming in the Animas near Durango do not yet appear to be severely detrimental. Only one of 108 caged fish placed in the river by Colorado Parks and Wildlife officials died during the first 24 hours in the mustard-yellow water. Monitoring of macro-invertebrates in the river has been similarly positive, although that could clearly change as sediment settles on the riverbed.

Colorado Parks and Wildlife broadcast video Tuesday of fingerling rainbow trout introduced in the Animas River just before the big plume of contaminated water hit Thursday. Five days after the spill, the fish "appear to be in pretty good shape," a CPW biologist said. The fish will now be submitted for analysis of heavy metal accumulation as on-site teams assess impacts of heavy metals on the river over the next several weeks if not months.

Although the long-term repercussions remain to be determined, the greater impact may prove to be that of perceptions.

Local fly-fishing shops already have reported being inundated with phone calls from people considering canceling their fishing trips to Durango, unaware of multiple other available fishing options in the region.

This is far from the first time heavy metals have spilled into the Animas River. Despite its Gold Medal trout fishing designation in the heart of Durango, the fishery has suffered for decades due to mine seepage, and annual stocking is necessary to sustain fish populations.

The Gold King disaster merely serves as the most recent and most dramatic blow. And perhaps, brought to light, the revealed reality of a mining industry that so often fails to take responsibility for enduring pollution problems near Silverton and across Colorado may ultimately come to something good.

The perception had been that everything was fine along the Animas, until it turned orange. Maybe this mustard-stained revelation can lead to some genuine action toward a long-term remedy for a long-standing issue. That's the kind of news we all could use.

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Dispatch Times

<http://www.dispatchtimes.com/colorado-governor-goes-to-see-mine-spill-impact/42857/>

Colorado governor goes to see mine spill impact

Newsmedia

August 12

Environmental Protection Agency Administrator Gina McCarthy speaks at a Resources for the Future policy leadership forum, Tuesday, August 11, 2015, in Washington.

“For nearly a week, a torrent of toxic sludge – the color of hot mustard and rife with poisonous metals – has been flowing through Colorado, Utah and New Mexico”.

EPA officials said the shockingly bright plume has already dissipated and that the leading edge

of the contamination can not be seen in the downstream stretches of the San Juan River or Lake Powell. Officials acknowledged that the spill was triggered while an EPA-supervised crew was working near Silverton, Colorado, in the southwest part of the state.

McCarthy also mentioned that she expected there to be lawsuits against the EPA, and Begaye said in a news release Sunday that he planned to take legal action against the agency.

The former geologist says that if there's a "silver lining" to the disaster, it will be a new relationship between the state and the EPA to solve the problem. While the Phoenix area uses Colorado River water, officials believe there is little to worry about.

Filfred said Tuesday in Utah that he doesn't know how long the reservation could truck in water and that farmers depend on the San Juan River to irrigate about 30,000 acres of crops.

Thomson Reuters Yellow waste water that had been held behind a barrier near an abandoned mine in the Animas River in Durango, Colorado.

Filfred said the tribe is frustrated by a lack of information from the federal government about whether the pollutants are harmful to humans and livestock.

Dissolved iron in the waste turned the long plume an alarming orange-yellow a look familiar to old-time miners who call it "yellow boy" so "the water appears worse aesthetically than it actually is, in terms of health", said Ron Cohen, a civil and environmental engineering professor at the Colorado School of Mines.

McCarthy and state and federal EPA officials have been under intense pressure and harsh criticism since last week's spill, caused by EPA contractors inspecting the Gold King Mine, which was abandoned in the 1920s.

New Mexico Gov. Susana Martinez, however, said she would not take anything off the table and

that the EPA should be held to the same standards as industry.

“Our commitment is to get this right and make sure we are protecting public health”. The team inadvertently released an estimated 3 million gallons of water laden with heavy metals and contaminants into a creek that flows into a river above Durango, Colo. Boaters and fishing groups have been told to avoid affected stretches of the Animas and San Juan rivers, which are usually crowded with rafters and anglers in a normal summer. It took about 24 hours to first notify some downstream communities of the accident and the agency originally underestimated the volume of the spill.

Heavy metals from Gold King and other defunct mines in Colorado have been leaching out and killing fish and other species for decades as rain and snowmelt spills from mining operations left abandoned and exposed.

The best course for the EPA would be to leave the metals where they settle, he said, noting that next spring’s mountain snowmelt would help dilute the contaminants further and flush them downstream.

Stretches of the Animas River and the San Juan River it flows into have also been declared disaster areas in New Mexico.

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The Hill

<http://thehill.com/policy/energy-environment/250915-colorado-rivers-pollution-levels-fall-after-spill>

Colorado river's pollution levels fall after spill

Timothy Cama

August 12, 9:45AM

Colorado state officials said pollution appears to have cleared from the Animas River after the Environmental Protection Agency (EPA) caused a massive mine waste spill.

Gov. John Hickenlooper (D) and Larry Wolk, executive director of the Colorado Department of Public Health and Environment, said Tuesday that their latest sampling show that the river is back to the pollution levels it had before the spill of 3 million gallons of heavy metals last week, the Durango Herald reported.

“Isn’t that amazing? That’s much better than what I would have hoped for,” Hickenlooper said in Durango, according to the Herald.

“The indications are that the threat to the human health is returning back to pre-event levels, if not already there now,” he continued.

Wolk said his agency does not believe there is any risk to human health.

The test results mean that officials could potentially reopen the river to recreation, fishing and drinking water intakes before the Aug. 17 target that was initially planned.

The EPA, meanwhile, said it was encouraged by the new findings, but wanted to verify the results itself before giving its blessing.

The spill caused the river to turn bright orange, as well as shining a spotlight of attention and embarrassment on the EPA.

EPA Administrator Gina McCarthy was due Wednesday to visit Durango and Farmington, N.M., which is downstream.

She and other officials have repeatedly apologized for the spill, which was caused accidentally when EPA contractors moved soil that was holding back a tailings pond from the gold mine that was abandoned decades ago.

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Reuters

<http://www.reuters.com/article/2015/08/12/usa-colorado-spill-idUSL1N10N02Y20150812>

UPDATE 2-Restrictions to remain for rivers hardest hit by Colorado mine waste spill

Steve Gorman
August 11, 10PM

Aug 11 (Reuters) - Two rivers in Colorado and New Mexico hit hardest by toxic waste spilled from a defunct gold mine will remain closed to drinking water and irrigation intakes for at least another week, but test samples show a gradual ebbing of contamination, environmental officials said on Tuesday.

The San Juan River and its northern tributary, the Animas River, have been fouled by the release of more than 3 million gallons (11.3 million liters) of acid mine drainage inadvertently triggered by a team of Environmental Protection Agency workers last Wednesday.

The discharge has continued to flow at the rate of about 500 gallons (1,900 liters) a minute from the site of the century-old Gold King Mine, near the town of Silverton in southwestern Colorado, into a stream below called Cement Creek.

From there, the wastewater has washed into the Animas River and into the San Juan River in northwestern New Mexico.

Some residents who live downstream from the mine and draw their drinking supplies from private wells have reported water discoloration, but there has been no immediate evidence of

harm to humans, livestock or wildlife, according to EPA officials.

Still, residents were advised to avoid drinking or bathing in well water, and the government was supplying water where needed. Two Colorado municipalities, including Durango, and the New Mexico towns of Aztec and Farmington have shut off their river intakes.

The bright orange contamination plume, containing heavy metals such as arsenic, mercury and lead, has dissipated through dilution as the discharge spreads downstream, with its leading edge no longer visible from aerial surveys, the EPA said "As it moves on, we are seeing a downward trajectory toward pre-event conditions," EPA chief Gina McCarthy said at a clean-energy event in Washington.

The Animas River in Durango, about 50 miles (80 km) south of the spill, had turned from orange to bright lime green by Sunday, and was a darker shade of blue-green by Tuesday, a sign that pollutants were gradually clearing, at least near the surface, said Sinjin Eberle, a spokesman for the conservation group American Rivers.

But experts said a long-term concern was the deposit of heavy metals from the spill that had settled into river sediments, where they can be churned up and unleash a new wave of pollution when storms hit or rivers run at flood stage.

POSSIBLE LEGAL ACTION AGAINST EPA

EPA officials said the Animas and San Juan rivers would remain closed until at least next Monday to such uses as drinking, irrigation, fishing and recreation as experts try to gauge safety risks posed by the spill.

Wastewater still escaping from the mine site was being diverted into hastily built settling ponds where the effluent is treated before it empties into Cement Creek, sharply reducing its acidity and metal levels, the EPA said.

Water samples taken from the upper Animas as the main plume of contamination arrived days ago showed concentrations of copper, zinc and cadmium as high as 100 times levels considered safe for fish and aquatic insects, said William Clements, an eco-toxicologist at Colorado State University who reviewed preliminary EPA data.

He said the peak cadmium levels were roughly 10 times higher than what would be regarded as safe for humans, while arsenic - especially toxic to people - spiked at 1,000 parts per billion, he said. That is 100 times the maximum contaminant level for arsenic set by the EPA for drinking water.

Clements said the readings offered just a snapshot of contamination in a place relatively close to the spill's origin at a point when the effect was most pronounced. "They really do fluctuate quite a bit with time," he said.

New Mexico Governor Susana Martinez and Colorado Governor John Hickenlooper both declared states of emergency on Monday, freeing up additional money for disaster response. Martinez also said she was directing her administration to "be prepared to take legal action against the EPA."

Hickenlooper visited a trout hatchery on Tuesday near Durango, where wildlife officials had caged more than 100 juvenile fish at several locations along the Animas to monitor their health. Only one had died so far, officials said.

Utah State University ecologist Charles Hawkins said the health effects on fish could take weeks or months to become lethal, or might translate into reproductive damage. "It would have to be incredibly toxic to kill them immediately," he said.

The Navajo Nation has also been affected. Tribal communities along the San Juan, which crosses the sprawling reservation through southeastern Utah before flowing to Lake Powell, rely on the river for fishing, irrigation and watering of livestock.

"We intend to make sure the Navajo Nation recovers every dollar it spends cleaning up this mess and every dollar it loses as a result of injuries to our precious Navajo natural resources," tribal President Russell Begaye said.

From: Ludwigsen, Emily
Sent: Wednesday, August 12, 2015 9:49 AM
Subject: CO Mine Spill Clips - 8/12

Associated Press (via Kristv)

<http://www.kristv.com/story/29767627/toxic-spill-in-colorado-river-cleared-up-long-term-impact-uncertain>

Toxic spill in Colorado River cleared up, long-term impact uncertain

Knickmeyer
August 12, 8:15AM

ALBUQUERQUE, N.M. (AP) - Russell Begaye stared into a hole in the side of a Colorado mountain, watching as yellow water contaminated with heavy metals poured out and raced down a slope toward a creek that feeds rivers critical to survival on the nation's largest Native American reservation and in other parts of the Southwest.

At the Gold King Mine, Begaye, president of the Navajo Nation, couldn't help but see the concerned faces of his people - the farmers who no longer had water for corn crops and the ranchers who had to scramble to get their cattle, sheep and goats away from the polluted San Juan River.

"We were told that the water was clearing up and getting back to normal," he said. "This is what EPA was telling us. We wanted to go up there as close as we could to the source. We wanted our people to see the water is still yellow."

Begaye and a small contingent of Navajo officials worked their way unannounced past barriers

and up the mountain over the weekend to get a closer look at the mine blowout that federal officials said sent more than 3 million gallons of water laden with lead, arsenic and other metals down the Animas River and into the San Juan River.

The 100-mile plume has since traveled through parts of Colorado, New Mexico and Utah on the way to Lake Powell, a key source of water for the Southwest.

All along the way, signs are posted warning people to stay out of the water. Farmers have stopped irrigating and communities have closed water intake systems. Bottled water on the Navajo Nation is becoming scarce.

Begaye said his tribe is bearing the brunt of the massive spill that was accidentally unleashed by EPA workers inspecting the long-idled Gold King mine near Silverton, Colorado, on Aug. 5. Two-thirds of the San Juan River crosses Navajo land before reaching Lake Powell.

"This is a huge issue," Begaye said. "This river, the San Juan, is our lifeline, not only in a spiritual sense but also it's an economic base that sustains the people that live along the river.

"When EPA is saying to me it's going to take decades to clean this up, that is how long uncertainty will exist as we drink the water, as we farm the land, as we put our livestock out there near the river," he said. "That is just, to me, a disaster of a huge proportion."

Frustration is mounting throughout the Four Corners region among officials and residents who say the EPA has moved too slowly and hasn't been forthcoming about the dangers of the spill. The Navajo Nation feels even more slighted given its status as a federally recognized tribe and sovereign nation.

Begaye said he has yet to receive a call from President Barack Obama. "It seems like the Obama administration just closed their doors and disappeared," he said.

On Wednesday, EPA Administrator Gina McCarthy planned to tour sites in New Mexico and Colorado affected by the spill. She called it a tragic and unfortunate incident, saying the EPA was taking responsibility to ensure the mess was cleaned up.

"I am absolutely, deeply sorry that this ever happened," she said Tuesday in Washington.

The EPA has said the current flows are too fast for the contaminants to pose an immediate health threat, and that the heavy metals will likely be diluted over time so they don't pose a longer-term threat, either.

Tests show some of the metals have settled to the bottom of the rivers and would dissolve only if conditions became acidic, which experts say isn't likely.

Fish testing was going on Tuesday in the Animas River near Durango, Colorado, with biologists working to determine the leak's impact on fish.

"We didn't have a big fish kill in the river," said Jim White, an aquatic biologist with Colorado Parks and Wildlife. "The one thing we don't know is sort of long term impacts to the aquatic community out here in general."

Colorado Gov. John Hickenlooper visited a contaminated stretch of the Animas and said he hopes a "silver lining" to the disaster will be a more aggressive state and federal effort to deal with mining's "legacy of pollution" across the West.

On the Navajo Nation, some 30,000 acres of crops are in danger without irrigation. Farmers also worry about contaminating their irrigation ditches once the gates are reopened, and ranchers are looking for assurances that livestock won't be exposed to contaminants each time they wade into the river and kick up sediment while getting a drink.

Navajo farmers are in the middle of alfalfa season and without rain, tribal officials say they will

be in trouble. They have been flooding the airwaves and social media with Navajo-language public service announcements to keep people updated.

Federal officials have said they are working to review and analyze data gathered from samples taken along the two rivers.

McCarthy said Tuesday that initial results show high levels of contaminants in the water have been diminishing as the plume moves downstream. Workers have built four ponds at the mine site to capture and treat additional discharges, she said.

Heavy metals from Gold King and other defunct mines in Colorado have been leaching out and killing fish and other species for decades as rain and snowmelt spills from abandoned, exposed sites.

The EPA has considered making part of the Animas River in Colorado a Superfund site for a quarter-century.

The designation would have provided more resources for a cleanup, but some people in Colorado opposed the status, fearing the stigma and federal strings attached, so the EPA agreed to allow local officials to lead cleanup efforts instead.

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CBS

<http://www.cbsnews.com/news/colorado-river-mine-spill-site-inspected-epa-administrator-other-officials/>

U.S., state officials to visit tainted Colorado river

CBS News

August 12, 6:54 AM

Several officials will be visiting Colorado and New Mexico Wednesday to inspect the damage from the Gold King Mine spill.

The head of the EPA, Gina McCarthy, as well as attorneys general from Colorado, New Mexico

and Utah all plan to personally inspect the river, reports CBS News correspondent Mireya Villarreal.

EPA takes blame for Colorado mine waste spill

Colorado Governor John Hickenlooper visited a contaminated stretch of the Animas River Tuesday and admitted that, while he's disappointed with the EPA, he's focused on the cleanup.

"Everyone's angry. I was angry. That said, our primary role right now is, that's behind us, and how are we going to move forward?" Hickenlooper said.

Even though the water looks normal now, over the past week, a plume of pollution with metals including arsenic and lead has marched at least 100 miles downstream.

In Washington D.C. Tuesday, EPA administrator McCarthy apologized for the spill.

"It pains me to no end see this happening, but we're working tirelessly to respond and have committed to a full review of exactly what happened," she said.

Preliminary tests show the water quality is returning to where it was in Durango, Colorado, before the accident. Still, the river will need to be monitored for years to come.

The spill is affecting people like Charlie Noone, who makes a living off the waters.

"We've had some cancellations, for sure. It's been tough, because a lot of people do come to Durango to fish the Animas," the fishing guide said. "It's a beautiful river. Not right now, but usually, it's really beautiful."

With businesses and families waiting for the all-clear, Hickenlooper said he hopes the county sheriff will be able to reopen the river as soon it's safe.

"I want to have that information in his hands the moment we have it -- in minutes, not in hours, not in days. The moment we have it," he said.

Hickenlooper said this spill should serve as a turning point for the EPA and how it handles mine-cleanups.

In Colorado alone, there are an estimated 23,000 abandoned mines.

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LA Times

<http://www.latimes.com/nation/la-na-colorado-river-spill-20150811-story.html>

States downstream from contaminated river upset that EPA didn't alert them

John M. Glionna and Matt Pearce

August 11, 7:13 PM

As the Environmental Protection Agency continued to monitor 3 million gallons of mine waste released into Colorado's Animas River, residents in two states downstream decried the federal agency Tuesday, saying it failed to alert them to mustard-colored sludge headed their way.

Officials for New Mexico's San Juan County Office of Emergency Management said they learned of the oncoming rush of wastewater laden with lead, arsenic and other heavy metals not from the EPA, but in a newspaper in nearby Durango, Colo.

In Page, Ariz., Mayor Bill Diak said that when he contacted EPA officials to attend an emergency community meeting Monday, the agency said no one was available. Agency officials responded only after Diak called his congresswoman in Washington, he said.

"We told her, 'Hey, this really is a concern to us and the EPA doesn't have time to talk to us,'"

Diak said. "They dropped the ball — using the media to get the word out."

On Tuesday, EPA Administrator Gina McCarthy said her agency took full responsibility for the spill caused by federal and contract workers cleaning up the defunct Gold King Mine above the town of Silverton, Colo. McCarthy, who planned to visit affected areas Wednesday, said the spill "pains me to no end. I am absolutely, deeply sorry this ever happened."

By late Tuesday, the leading edge of the spill was eight miles west of Farmington, N.M., more than 100 miles from the disaster site. Parts of the Animas and San Juan rivers have been declared disaster areas, as governors from Colorado and New Mexico conducted visits to communities that have shut off outtake valves from the polluted waterways.

In a news conference held at an agency command center in Durango, EPA officials said workers were treating the 500 to 700 gallons of tainted water still leaking from the Gold King Mine.

Though the EPA said stretches of the Animas south of the spill were clearing, residents described orange-colored silt on the river bottom and shoreline in many places. The agency will continue to monitor the silt "for years to come," EPA officials said, noting that sediment would be stirred up by rainfall or spring runoff.

The plume was expected to reach Lake Powell this week, but the pollutants were not expected to threaten the lake or Colorado River-fed drinking water for Western states including California.

Justyn Liff, a Colorado spokeswoman for the U.S. Bureau of Reclamation, said the 3-million-gallon spill was about the size of 4 1/2 Olympic-sized pools. Lake Powell, she said, contained 4.2 trillion gallons of water, comparable to 6.4 million Olympic-sized pools.

Mic Stewart, director of water quality for the Metropolitan Water District of Southern California, agreed that the contamination would take years to hit the region, if ever.

“The event [happened] about 850 miles upstream of us, so we have a couple factors in our favor,” he said. “It’s a long distance away.”

In Colorado, the state parks and wildlife department continued to monitor fish placed in the Animas River near Durango to gauge health effects of the sludge. The agency placed scores of rainbow trout fingerlings from a local hatchery into the river at three locations.

“So far, they’re surviving,” said spokesman Matt Robbins. “As for the wildlife that might be drinking this water, we don’t know.”

Communities that rely on the Animas and the San Juan for water say the spill has upset their way of life.

Michele Truby-Tillen, a spokeswoman for the San Juan County Office of Emergency Management in New Mexico, said people who drew their water directly from the Animas River had been coming into nearby Farmington to take showers. Officials have blocked farmers from irrigating crops with river water and have ordered thousands of well owners to have their water tested.

“People ask, ‘Is this going to affect our health and welfare for the next 10 years?’ All we say is to take this one day at a time. The long term will have to wait,” she said.

She criticized the EPA for not giving residents warning that the flood of polluted water was coming their way. “If they had done that, farmers and well-users could have drawn out as much clean water as they could before this set upon us,” she said. “But that didn’t happen.”

The attorneys general of New Mexico, Colorado and Utah plan to visit the spill site on Wednesday and discuss potential “legal remedies,” according to the New Mexico attorney general's office.

“I’m not taking anything off of the table. Right now we have people preparing for a lawsuit, if that is what we need to do,” Republican New Mexico Gov. Susana Martinez said in a Tuesday

appearance on Fox News.

Colorado Gov. John Hickenlooper, a Democrat, also criticized the EPA in a televised news conference in Durango, albeit with a softer tone.

“When we have an incident like this, it is, in every sense, unacceptable,” he said. But Hickenlooper, while promising accountability, declined to condemn the agency, saying the EPA’s intentions — to treat the wastewater in the mine — were good.

Jared Blumenfeld, an EPA spokesman in San Francisco, said the agency was investigating why it took 24 hours for officials to notify governors in affected states of the spill.

“There are 300 miles of river between the incident and Lake Powell. On fast-moving issues we focus on the most affected areas first,” he said. “But today we are coordinating better than we did at first.”

In Page in northern Arizona, residents wait with a sense of dread for the oncoming pollution.

On Monday, Mayor Diak held an unusual meeting attended by 150 residents, many of whom questioned EPA officials who phoned into the event.

“People were concerned over their drinking water,” Diak said of the town of 9,000 residents. “The doomsday people were predicting the price of water to rise.”

But Diak hoped Lake Powell would hold its own.

“Remember, this is a big lake with 1,900 miles of coastline, more than the entire West Coast of the U.S.,” he said. “Bottom line, this is like adding one drop of water with red dye into a pool of 15,000 gallons. So just try and find the red dye.”

NBC

<http://www.nbcnews.com/news/us-news/week-after-toxic-river-spill-impact-west-remains-unclear-n407896>

A Week After Toxic River Spill in Colorado, Environmental Impact Remains Unclear

Jon Schuppe

August 11, 6:35PM

Last Wednesday, Environmental Protection Agency workers cleaning up a defunct gold mine in southwestern Colorado mistakenly unleashed a torrent of toxic wastewater, sending the chemical-laden plume into the Animas River, turning it bright yellow and forcing officials to close it off.

About three millions gallons of the polluted sludge churned into the river, moving downstream to the town of Durango, on to New Mexico and toward Lake Powell in Utah, raising all sorts of questions about the immediate and long-term impact on the drinking water, wildlife and the local economy.

This is what is known so far:

What was in the toxic wastewater?

The plume contained concentrated levels of heavy metals, including lead, iron, zinc and manganese, as well as arsenic. It was the iron that turned the river the color of mustard.

How polluted is the river now?

State and federal officials say that the spike of toxins lasted about eight hours. Since then, the EPA has built four collection ponds at the mine site, where it is treating the water in order to reduce acidity levels and remove dissolved metals. Officials say the pollutants have now

dissipated to the point that the river near the spill point is returning to normal water-quality levels — and is regaining its greenish-blue hue. But the contaminants will eventually settle in the river bed, and could be kicked back up during rainstorms.

How long will the pollution stick around?

Jeff Curtis, a University of British Columbia scientist and water quality expert, said he expected two waves of toxins to move downstream from the spill. The first wave comprises water-soluble pollutants, including arsenic and cadmium, freely flowing with the river's current. The second wave of less soluble materials, including lead, will settle in river basin sediment and be churned up by later rainstorms.

That means that the full impact of the spill will take years, perhaps decades to unfold, as the toxins continue to move through the ecosystem. Fish will bear the brunt of the contamination, poisons slowly accumulating in their bodies.

The effect on humans will take much longer to measure, Curtis said.

What's been the impact on drinking water?

Officials in Durango, the first town downstream from the spill, moved quickly to shut off its intake valve from the Animas. Tap water there is considered safe to drink, but because the town is now relying on the Florida River for its supply, officials are urging people to conserve. Residents and farmers who rely on wells were switched to alternative sources.

Seven water systems in Colorado and New Mexico may also be affected, as the river carries the contaminants closer to the Colorado River, which feeds much of the West.

What about wildlife?

Officials are still trying to figure out how the spill has affected animals and fish. Tests have not turned up any widespread deaths of fish, or of insects that the fish eat.

When will the Animas River reopen?

The EPA said it did not anticipate making any decision about making the river available for public use until at least Aug. 17.

Has the leak at the mine itself been stopped?

Contaminated runoff is still flowing from the abandoned Gold King Mine, the Durango Herald newspaper reported.

How many of these mines are out there?

The Gold King Mine is one of thousands of mines that drove the local economy until the early-20th century. All are now closed. Some are now tourist attractions. All maintain a toxic legacy, as groundwater flows through the old tunnels and picks up pollutants.

How did the spill happen?

Locals have been debating how to stem the flow of hazardous chemicals from the mines, but resisted allowing the EPA to declare the mines a federal Superfund site, fearing the impact on the economy. Instead, the EPA decided on a softer approach: go into the worst of the abandoned mines, measure the level of pollution, treat the sludge and figure out whether more remediation was necessary. That's what an EPA crew was doing at Gold King Mine on Aug. 5, when it accidentally broke through a mound of material blocking the tunnel, letting loose the toxic plume.

Who's paying for the cleanup?

The details are far from clear. But it's assumed that the EPA will end up the focus of millions of dollars in claims. In the short term, federal and state officials are shouldering the immediate costs of responding to the spill.

Reuters

<http://www.reuters.com/article/2015/08/12/usa-colorado-spill-idUSL1N10M1JV20150812>

CORRECTED-UPDATE 1-Restrictions to remain for rivers hardest hit by Colorado mine waste spill

Steve Gorman

August 11, 9:36 PM

Aug 11 (Reuters) - New Mexico officials have joined Colorado in declaring an emergency due to toxic wastewater spewing from an abandoned gold mine, a spill that prompted authorities to close two rivers to drinking water and irrigation intakes for at least another week.

The San Juan River and its northern tributary, the Animas River, have been fouled by the release of more than 3 million gallons (11.3 million liters) of acid mine drainage inadvertently triggered by a team of Environmental Protection Agency workers last Wednesday.

The discharge has continued to flow at the rate of about 500 gallons (1,900 liters) a minute from the site of the century-old Gold King Mine, near the town of Silverton in southwestern Colorado, into a stream below called Cement Creek.

From there, the wastewater has washed into the Animas River and into the San Juan River in northwestern New Mexico.

The bright orange contamination plume, containing heavy metals such as arsenic, mercury and lead, has dissipated through dilution as it spreads downstream, with its leading edge no longer visible from aerial surveys, the EPA said.

"From initial sampling, as the plume has advanced, we are seeing elevated levels (of contaminants), but as it moves on we are seeing a downward trajectory toward pre-event conditions," EPA chief Gina McCarthy said at a clean-energy event in Washington.

The Animas River in Durango, Colorado, about 50 miles (80 km) south of the spill, had turned bright, lime green by Sunday, and was a darker shade of blue-green by Tuesday, a sign that pollutants were gradually clearing, at least near the surface, said Sinjin Eberle, a spokesman for the conservation group American Rivers.

But experts said a long-term concern was the deposit of heavy metals from the spill that had settled into river sediments, where they can be churned up and unleash a new wave of pollution when storms hit or rivers run at flood stage.

An unspecified number of residents who live downstream from the mine and draw their drinking supplies from private wells have reported water discoloration, but there has been no immediate evidence of harm to humans, livestock or wildlife, according to EPA officials.

Still, residents have been advised to avoid drinking or bathing in water drawn from wells in the vicinity, and the government is working to supply water as needed to homes, ranches and farms.

Two Colorado municipalities, including the city of Durango, and the New Mexico towns of Aztec and Farmington have shut off their river intakes, the EPA said.

POSSIBLE LEGAL ACTION AGAINST EPA

EPA officials said the Animas and San Juan rivers would remain closed until at least next Monday to such uses as the supply of drinking and irrigation water, and fishing and recreation as experts try to gauge safety risks posed by the spill.

Wastewater still escaping from the mine site was being diverted into hastily built settling ponds where the effluent is treated before it empties into Cement Creek, sharply reducing its acidity and metal levels, the EPA said.

New Mexico Governor Susana Martinez declared a state of emergency on Monday, freeing up an additional \$750,000 for disaster response, and said she was directing her administration to "be prepared to take legal action against the EPA."

Colorado Governor John Hickenlooper declared his own "state of disaster" emergency on Monday, and vowed to take actions to "make sure this doesn't happen again."

Colorado has more than 4,000 abandoned mines, about 1,100 of them around Silverton, according to American Rivers, which calls those sites "ticking time bombs."

The Navajo Nation has also been affected. Its sprawling reservation is traversed by the San Juan River, which flows through southeastern Utah into Lake Powell.

It was uncertain how far significant contamination from the spill would travel, but EPA officials said on Tuesday the leading edge of the original burst of contamination had moved well beyond Farmington.